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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,409	07/25/2001	Tsuyoshi Tamura	110195	4925

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OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER	
NGUYEN, KEVIN M	

ART UNIT	PAPER NUMBER
2674	11

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/911,409	TAMURA, TSUYOSHI	
	Examiner	Art Unit	
	Kevin M. Nguyen	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 July 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *6,8,10* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 9/20/2001, 11/9/2001, and 12/03/2002 which have been placed in the application file, the information referred to therein has been considered as to the merits.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Inamori (US 6,340,959).

As to claim 1, Inamori teaches a display section (22) which includes first bus lines (GSP, SPS, LP, CLS, REV, REVVO) transfer the still-image, and second bus lines (RGB, PXCLK, Hsync, Vsync) transfer the moving image data; a RAM (37) stores the still image data and the moving image data, a first control circuit (33, 34) that respects to the memory (31); a second control (37) drives the display section (22) (see figure 2, column 7, lines 1-62).

As to claim 2, Inamori teaches the RAM (37) having a first port for writing the still image data via the first bus lines (GSP, SPS, LP, CLS, REV, REVVO), a second port for

writing the moving image data via the second bus lines (RGB, PXCLK, Hsync, Vsync), and the RAM (37) having a third port for reading out the display data (figure 2, column 7, lines 1-62).

2. Claims 3, 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Akimoto et al (EP 0852371).

As to claim 3, Akimoto et al teaches a display section (18) including a first bus line (7), the still image data (5), the external MPU (33); a second bus line (4), the moving image data (3); a RAM (6) of still image data and moving image data, a first column address control circuit of still image (51), a second column address of moving image (52); a first page of still image data (42); and second page of moving image data (44) (figure 3, column 5, line 57 through column 6, line 4), an MPU-related control circuit (2), a display address control circuit (17), a driver-related control circuit (20) (figures 1-2, column 4, lines 20-48).

As to claim 6, Akimoto et al teaches a first column address control circuit of still image (51), a first page of still image data (42) (figure 3, column 6, lines 3-4), RAM (6), an MPU-related control circuit (2) (figure 1, column 4, lines 20-48).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 4, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto et al in view of Takasugi (US 5,712,652).

As to claim 4, Akimoto et al teaches all of the claimed limitation of claim 3, except for a first pair of bit lines, a second pair of bit lines, a first column switch, a second control switch, a first word line, a second word line. However, Takasugi teaches at least a memory cell (7) which includes a first pair of bit lines (9A), a second pair of bit lines (9B), a first column switch (trai) and a second control switch (trdi) are controlled by YAn and YBN; a first word line (Wlaj) and a second word line (WlaK) are controlled by X address decoder (2A) and X address decoder (2B). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the X and Y driver circuits taught by Takasugi for the X and Y driver circuits disclosed in the display system of Akimoto et al because this would improve the quality of the image being displayed, while fabricating the driving circuitry at low cost (column 10, lines 3-7 of Takasugi).

As to claim 7, Akimoto et al teaches a first column address control circuit of still image (51), a first page of still image data (42) (figure 3, column 6, lines 3-4), RAM (6), an MPU-related control circuit (2) (figure 1, column 4, lines 20-48).

4. Claims 5, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto et al in view of Takasugi as applied to claim 3 above, and further in view of Inamori.

As to claim 5, Akimoto et al and Takasugi teach all of claimed 5, except for a second RAM which stores the moving-image data that has been transferred via the second bus line. However, Inamori teaches a RAM (37) which stores the moving-image

data that has been transferred via the second bus line (RGB, PXCLK, Hsync, Vsync) (see figure 2, column 7, lines 1-62). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize a RAM (37) which stores the moving-image data that has been transferred via the second bus line taught by Inamori for Akimoto et al's and Takasugi's display section because this would improve the quality of the image being displayed (column 14, lines 55-56), while fabricating the driving circuitry at reduced power consumption (column 11, lines 10-11 of Inamori).

As to claim 8, Akimoto et al teaches a first column address control circuit of still image (51), a first page of still image data (42) (figure 3, column 6, lines 3-4), RAM (6), an MPU-related control circuit (2) (figure 1, column 4, lines 20-48).

5. Claims 9, 10, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inamori in view of Moughanmi et al (US 6,137,466).

As to claims 9, 10, Inamori teaches all of the claimed limitation of claim 1, except for the RAM-incorporated column driver, and the row driver. However, Moughanmi teaches a related LCD panel which includes a memory (36)-incorporated column driver (34), and the row driver (24) (see figure 1, column 2, lines 59-61). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the X and Y driver circuits taught by Moughanmi et al for the X and Y driver circuits disclosed in the LCD system of Inamori because this would improve the quality of the image being displayed, while fabricating the driving circuitry at reduced power consumption (column 2, lines 20-27 of Moughanmi et al).

As to claim 17, Inamori teaches the display unit (22), an MPU (26), the still data (GSP, SPS, LP, CLS, REV, REVVO), the moving data (RGB, PXCLK, Hsync, Vsync) (figure 2, column 7, lines 1-62).

6. Claims 11, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto et al in view of Moughanmi et al.

As to claims q11, 14, Akimoto et al teaches all of the claimed limitation of claim 3, except for the RAM-incorporated column driver, and the row driver. However, Moughanmi teaches a related LCD panel which includes a memory (36)-incorporated column driver (34), and the row driver (24) (see figure 1, column 2, lines 59-61). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the X and Y driver circuits taught by Moughanmi et al for the X and Y driver circuits disclosed in the LCD system of Akimoto et al because this would improve the quality of the image being displayed, while fabricating the driving circuitry at reduced power consumption (column 2, lines 20-27 of Moughanmi et al).

7. Claims 12, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto et al in view of Takasugi as applied to claim 3 above, and further in view of Moughanmi et al.

As to claims 12, 15, Akimoto et al and Takasugi teach all of the claimed limitation of claim 3, except for the RAM-incorporated column driver, and the row driver. However, Moughanmi teaches a related LCD panel which includes a memory (36)-incorporated column driver (34), and the row driver (24) (see figure 1, column 2, lines 59-61). It would have been obvious to a person of ordinary skill in the art at the time of the invention to

utilize the X and Y driver circuits taught by Moughanmi et al for the X and Y driver circuits disclosed in the LCD system of Akimoto et al and Takasugi because this would improve the quality of the image being displayed, while fabricating the driving circuitry at reduced power consumption (column 2, lines 20-27 of Moughanmi et al).

8. Claims 13, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto et al in view of Takasugi in view of Inamori as applied to claim 3 above, and further in view of Moughanmi et al.

As to claims 13, 16, Akimoto et al and Takasugi, and Inamori teach all of the claimed limitation of claim 3, except for the RAM-incorporated column driver, and the row driver. However, Moughanmi teaches a related LCD panel which includes a memory (36)-incorporated column driver (34), and the row driver (24) (see figure 1, column 2, lines 59-61). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the X and Y driver circuits taught by Moughanmi et al for the X and Y driver circuits disclosed in the LCD system of Akimoto et al, Takasugi, and Inamori because this would improve the quality of the image being displayed, while fabricating the driving circuitry at reduced power consumption (column 2, lines 20-27 of Moughanmi et al).

9. Claims 18, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inamori in view of Moughanmi et al.

As to claims 18, 19, Inamori teaches a CPU (26) including a first setting device that sets a still image area, a second setting device that sets an arbitrary moving image area (column 9, lines 51-64), a RAM (37) writes the still-image data and moving-image

data (figure 2). Inamori fails to teach the RAM-incorporated driver. However, Moughanmi teaches a related LCD panel which includes a memory (36)-incorporated driver (34) (see figure 1, column 2, lines 59-61). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the X and Y driver circuits taught by Moughanmi et al for the X and Y driver circuits disclosed in the LCD system of Inamori because this would improve the quality of the image being displayed, while fabricating the driving circuitry at reduced power consumption (column 2, lines 20-27 of Moughanmi et al).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Otake et al (US 5,400,052) and Kuga (US 5,546,104) teach the display section which includes first bus lines transfer the still-image, and second bus lines transfer the moving image data; a memory stores the still image data and the moving image data, a first control circuit that respects to the memory, a second control that drives the display section.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on MON-THU from 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached on **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kevin M. Nguyen
Patent Examiner
Art Unit 2674

KN
October 18, 2003

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600